Dehcho Boreal Caribou Study Progress Report, April 2013

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Photo Credit Danny Allaire - ENR

The Dehcho boreal caribou study was initiated in 2004 with the deployment of ten satellite collars on adult female caribou at the request of, and after consultation with Sambaa K'e Dene Band (SKDB) of Trout Lake. Extensive consultations in response to requests from other First Nations since have increased the study area and number of First Nations partners in this study. From 2004-2013 a total of 113 collars (mostly ARGOS DS or GPS) have been deployed on adult female boreal caribou (Appendix 1, Figure 1). A more detailed background history of the program, the collars used, and the deployment procedures can be found in Larter and Allaire (2010). This report provides updated results and new information from another year of data.

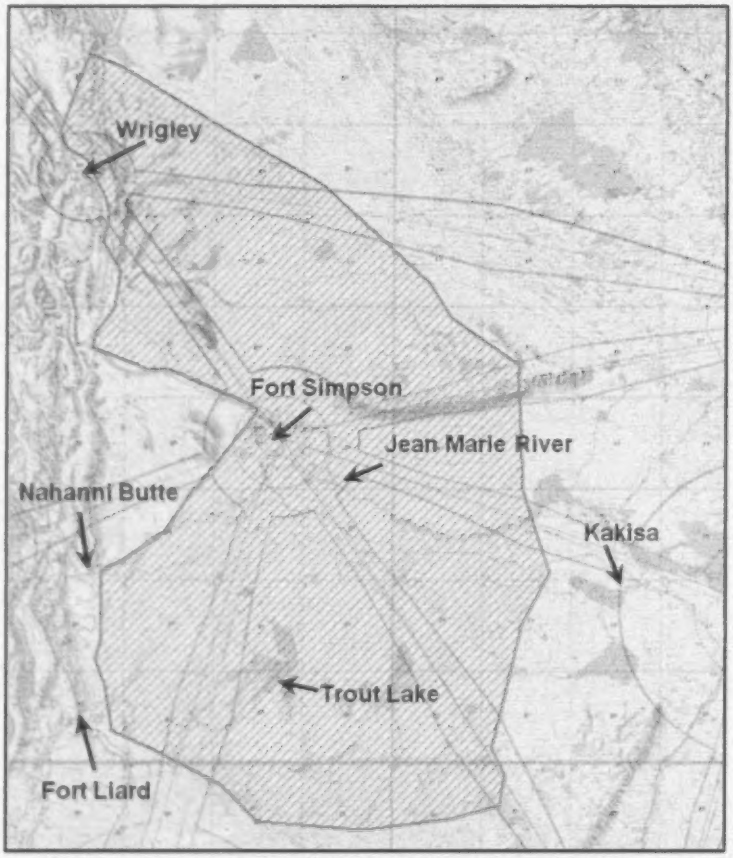

Figure 1. The Dehcho boreal caribou study area, based upon the locations of satellite/GPS collared adult female boreal caribou.

Home Ranges

We calculated the 100% minimum convex polygon (MCP) for all caribou with satellite (DS) or GPS collars that had provided locations for ≥12 months (n=75). The MCP is a line connecting all of the outside points where a specific caribou was located and represents the range used by that individual female caribou. For 41 of the 75 collared females we had locations for ≥24 months. We used all locations to calculate a cumulative range used by each individual female (Figure 2). The mean range size was 3044.62km^2 (range 260.6-14,419.9km^2; median 2358.11km^2). Seven caribou have been located in northeastern British Columbia (NEBC) and one in northwestern Alberta (Figure 2). Two caribou collared in an NEBC study have been located southeast of Trout Lake (Brad Culling pers. comm.). A caribou originally collared in the adjacent Cameron Hills study area (Johnson 2007), was re-captured and collared in February 2007 near Trainor Lake; this collar released in June 2010. We calculated its home range based solely on locations after it was re-collared. A caribou collared north of Trout Lake in February 2010 has the largest range. She moved south of Trout Lake, east towards the Redknife River, and more recently west towards the Netla River and the Liard Highway. Home range sizes we report are similar to those reported for the Cameron Hills and Hay River Lowlands (Kelly and Cox 2011) and Gwich'in study areas (means of *ca.* 3000km^2; Nagy 2011).

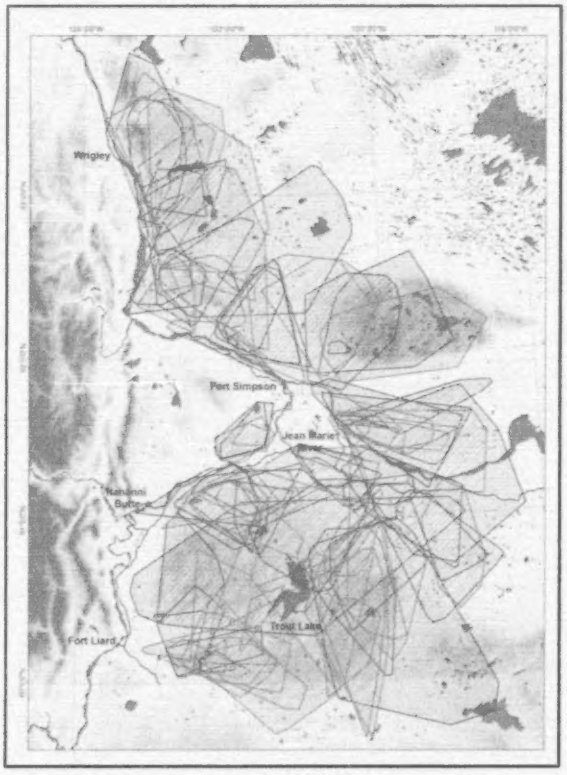

Figure 2. Cumulative ranges (100% MCP) of 75 collared female boreal caribou. Red, females with satellite collars, black, females with GPS collars.

Calving and Calving Events

Female boreal caribou spread out during the calving period, likely to avoid predation (Figure 3). Daily movement rates drop dramatically from *ca.* 6km/day two days prior to calving, to *ca.* 0.2km/day on the day of calving, and remain at ≤1km/day for about a week post-calving (Nagy 2011). By analyzing the daily movement patterns of collared female caribou we can determine when and where a female boreal caribou calved or not. The peak of calving period for boreal caribou in southern NWT is May 7-21 (Nagy 2011). By using movement data to determine calving dates, we no longer have to fly survey(s) during the calving period thus reducing disturbance and we also get a more accurate assessment of the number of calves born because we do not risk surveying before calves are born or after newborn calves may have died.

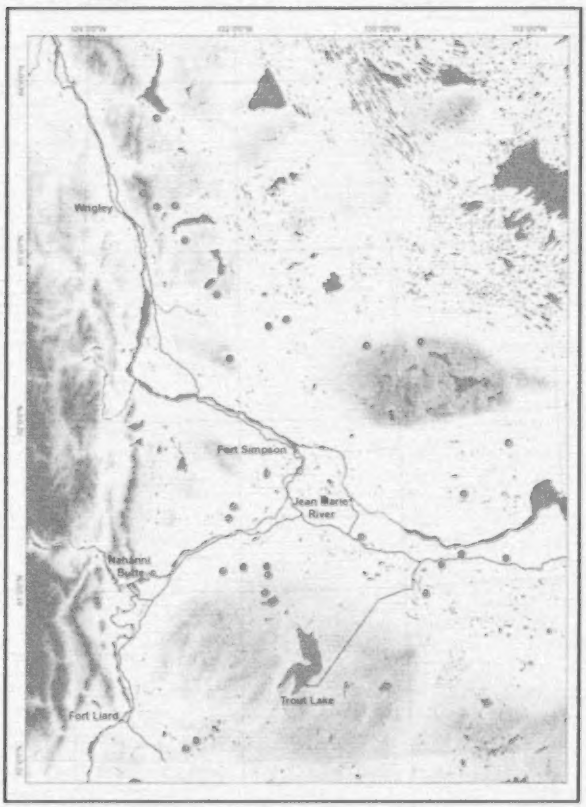

Figure 3. Calving locations of collared boreal caribou ● during 8-24 May, 2012. Note the wide dispersal throughout the range.

We determined calving events in 2012 for all collared female boreal caribou. Twenty seven of 30 females had calves; 3 lost their calves shortly after birth. Calves were born from May 8-24, 2012. The 17 day calving period in 2012 was less than the 19 day period for 20 females in 2011 and went 3 days beyond the peak calving period defined in Nagy (2011). On 10 May, the largest number of calves was born (5 of 27) and by 19 May, 89% (24 of 27) were born (Figure 4). The last calf born to a collared female was on 24 May.

We determined all potential calving events, based upon movement data, for all collared caribou from 2004 to 2012 where there was location data from 1 May to 1 June. There were 201 potential calving events from 90 different females; only one potential calving event could not be determined by the analysis of movement data. There was a very high number of births, with 189 calves born to

collared caribou during this period. This finding was consistent with the high level of pregnancy based upon blood tests found for captured caribou. The high number of births and pregnancies from collared females implies that capture and wearing a collar has not prevented females from becoming pregnant and bearing calves.

Timing and Fidelity of Calving

Individual females had remarkable consistency in calving dates. Thirteen different females had calves each year for 4 consecutive years. Two of these females had 3 of 4 calves born on the same date; another 2 females had all of their calves born within a 3 day period each year. One female collared in February 2012 has borne calves on the same day in 2010, 2011, and 2012.

Whether or not collared caribou show fidelity to calving location is a topic of great debate. From this study we know that female caribou can live to 17 years, have a calf as early as 2 years and as late as 16 years (Larter and Allaire 2009; this report), and have an average range of *ca.* 3000km^2. We have the locations of 4 consecutive calving events for 13 different females. Although this is only 4 of a potential maximum 15 calving events in a lifetime, fidelity to an area for calving for a 3-4 year period may be have implications related to disturbance mitigation. We measured the distance between each successive and all calving events for the 13 females that had calved for 4 successive years. Some females liked to calve in the same general area while others did not. Six females had a successive calving location <1300m distant; one <300m distant. The average distance between 4 calving locations for 3 females was <6km. Contrastingly, the average distance between 4 calving locations was >30km for 3 other females.

Calf Survival

Based upon the 22 collared females that calved in May 2012 and survived with active collars to be observed in the March 2013 classification survey, calf survival was *ca.* 36% (8/22). One collared female (165) calved during May 2012 but her collar released on schedule in June 2012. Three collared females (176, 180, 182) died likely from wolf predation July and August, 2012. Therefore their calves could not be included in the estimate of survival.

The Dehcho experienced a heavy wet snowfall 16-18 May, 2012 which could have had a major impact on neonatal calf survival. The heavy wet snow snapped trees, cut communication lines and occurred during peak calving. Seventeen of 22 collared females had calved by 15 May (Figure 4); 8 of these 17 survived through March 2013. However, none of the 5 calves born 17-24 May survived through the March 2013 survey. Based upon movement data, two of these calves died a few days after being born. We suspect that extended hypothermic conditions contributed to the low survival of calves born to collared females during or shortly after the spring storm. On average calves have been born two days earlier in the south versus the north part of the study area, so this weather may have had more effect on calf survival in the north. Another factor that may have reduced over winter survival of calves this year was the large winter snowfall over the entire region.

Boreal caribou, like other deer, have a high probability of conceiving after reaching maturity at 2-3 years old. Based upon the level of progesterone in blood serum from the collared females, 91% (103 of 113) were pregnant; six (5.0%) were not pregnant and the remaining four were borderline (Table 1).

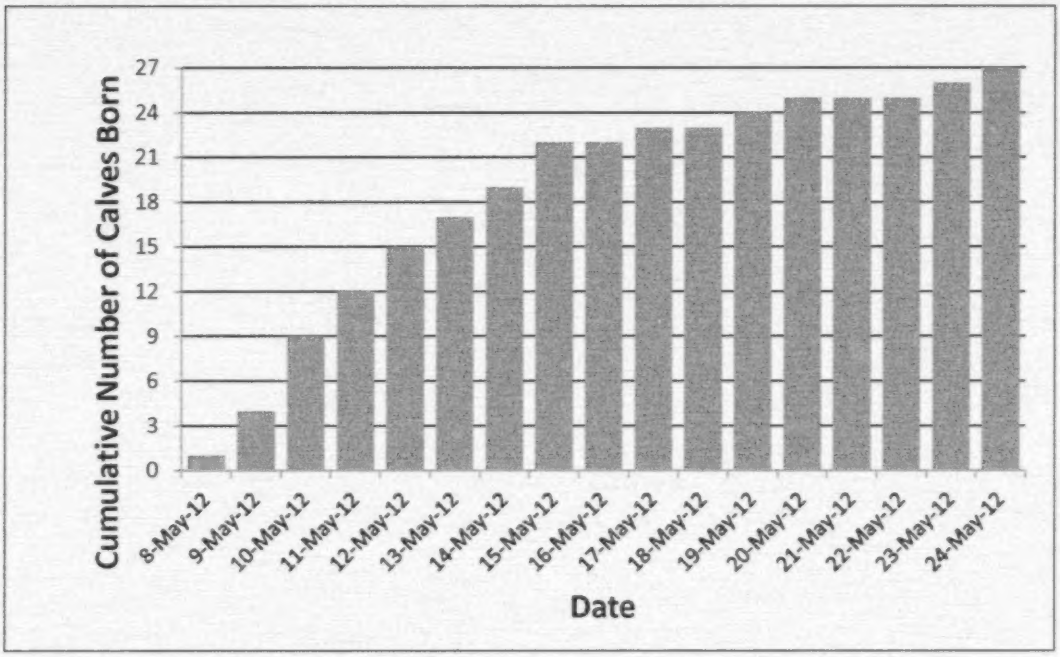

Figure 4. The number of calves born, in successive days to 27 collared female boreal caribou during the May, 2012 calving period.

Table 1. The number of blood samples indicating pregnant, borderline, and not pregnant for collared boreal caribou females over time. Pregnancy determination based upon progesterone levels in blood serum. No collaring occurred in 2011.

	2004	2005	2006	2007	2008	2009	2010	2012	2013
Pregnant	10	12	10	16	7	7	17	14	10
Borderline	0	0	2	1	0	0	1	0	0
Not Pregnant	0	1	1	0	1	1	0	2	0
Total	10	13	13	17	8	8	18	16	10

February/March Classification Survey

Photo Credit John Nagy

This survey is conducted with a helicopter because we need to see all collared caribou and determine the sex/age class of all other caribou we see. Caribou are classified into calves (9-10 months old), yearlings (21-22 months old), females (≥32 months old), and males (≥32 months old), based upon antler size and shape, and animal size. There is the potential for some yearlings to be mistakenly classified as females or males ≥32 months old. Photographs of caribou groups are taken to verify classification and the presence of calves. We assume that calves of the year observed in this late winter survey are recruited into the population. We also report other wildlife observed during surveys (Table 2). We flew the survey 4-6 March, 2013, covering a flight line of *ca.* 1865km; 282 boreal caribou were seen and classified (Table 2). In only the 2009 survey did we see more caribou.

Movement data showed that caribou did not become sedentary for extended periods of January and February as in most other years. Local harvesters were saying that deep sugary snow was making travel difficult for hunting/trapping and was also making travel difficult for caribou. If caribou were in larger groups they could take turns leading the group when moving. More leaders would cut down on the amount of energy each caribou would need to use to move from feeding sites. This year caribou were in larger groups than in other years. We saw ten groups of ≥10 caribou, with the largest group being 16. Also, the average number of caribou grouped with a collared caribou was greater this year than in any previous year. Deep, sugary snow conditions that hindered movement may also have been a factor reducing the over winter survival of calves.

Eleven of 35 collared females (including females collared a month earlier) were observed with calves. Based upon the total number of females and calves observed during the survey, we estimated just 28.1 calves per 100 adult females this March. This is lower than the estimate for each of the previous four years (Table 2), being similar to that reported for caribou in the Cameron Hills and Hay River Lowlands study areas (Kelly and Cox 2011) but lower than that reported for the Gwich'in study areas in the Lower Mackenzie Valley (J. Nagy pers. comm.). Wolf predation on boreal caribou is negligible in the Lower Mackenzie Valley unlike in the Cameron Hills, Hay River Lowlands and Dehcho study areas (Johnson 2007; Larter and Allaire 2010; Kelly and Cox 2011; Nagy 2011).

Table 2. The total number of caribou classified, and other wildlife observed, during the sex/age classification surveys in 2006-2013 conducted in February-March.

	2006	2007	2008	2009	2010	2011	2012	2013
#of active collars	24	33	35	37	39[1]	24[2]	30	35[2]
Total # of caribou observed	170	216	241	291	235	161	197	282
# of females (≥32 mo.)	94	114	145	160	128	74	104	153
# of calves (8-10 mo.)	27	26	34	50	45	33	40	43
# of yearlings (20-22 mo.)	13	6	1	1	1	2	1	2
# of males (≥32 mo.)	35	70	61	80	61	50	52	84
# unknown sex/age caribou	1	0	0	0	0	2	0	0
# of calves per 100 females	28.7	22.8	23.4	31.3	35.2	44.6	38.5	28.1
# of moose observed	18	38	15	31	23	22	25	18
# of wolves observed	2	1	0	0	0	0	0	0
Flight line length (km)	1200	1600	1700	2000	1750	1655	1900	1865

[1] One collared animal located during the South Slave classification survey.
[2] Two collared animals located during the South Slave classification survey.

This year a similar sex/age classification survey was conducted in the adjacent South Slave study area. Although the study areas are adjacent, caribou collared as part of this Dehcho study were collared and have been located in South Slave study area. We expect caribou collared for both studies will move back and forth across this arbitrary boundary. For a more cost effective way to relocate collared animals from both studies we relocated two animals from the South Slave study and two animals from the Dehcho study were relocated during the South Slave survey (Table 2).

Released Collars and Caribou Deaths

Starting in March 2005, release mechanisms were installed on all collars deployed. The programmed release dates are usually between mid-June to mid-July, shortly after the calving period. The VHF is duty cycled so that signals continue to transmit for potentially up to six months after releasing, giving us an increased opportunity to retrieve the collar. This year five collars released; three in June 2012 and two in March 2013 after the survey. We were unable to retrieve any released collars as they were widely distributed in inaccessible areas. Additionally, the busy 2012 fire season drastically limited access to helicopter support which is critical for collar retrieval. This was the first year collars released after being on caribou for five calving periods.

We were able to retrieve collars from the three collared caribou that died between April 1, 2012 and March 31, 2013 (caribou 176, 182, 190) and one that died in 2010 (caribou 152). Collars from 176 and 182 were retrieved from wolf kills between the Mackenzie River and the Mackenzie Highway (Hwy. 1) in the Small Ax and Wallace Creek area. Collar 190 was retrieved from a wolf kill north of the Mackenzie River about 40km to the NW of Fort Simpson. Because of the accuracy of the last location from GPS collar 152 we were able to walk in from km39 of the Trout Lake winter road and retrieve the collar. The VHF on this collar had stopped signal transmissions months previously. Retrieved collars were refurbished if possible.

Since March 2004, 48 collared caribou have died. Predation by wolves and black bears has been the main cause of death. There is strong evidence that 33 caribou (69%) were killed by wolves and one was killed by a black bear. Six (13%) caribou were harvested, two died of causes likely associated with old age, and the cause of death for 6 caribou remains unknown since there has been no retrieval. Most deaths (n=36; 75%) occur between late-March and mid-July in any year; similar to that reported in the Cameron Hills and Hay River Lowlands study areas (Johnson 2007).

Seismic lines allow wolves greater access to caribou habitat (Neufeld 2006). This access has resulted in more caribou mortalities in many areas (McLoughlin *et al.* 2003). In Northwest Territories boreal caribou use areas ≤400m from anthropogenic linear features less than other areas, and travel faster when they encounter them (Nagy 2011). The remains of 14 of 34 (41%) predated caribou were found ≤400m from anthropogenic linear features. Data for linear features are based upon the Northwest Territories Dehcho Land Use Planning Board.

We have managed to retrieve teeth from 17 of the 48 caribou that have died during the study. Sixteen of the 17 teeth have been aged; one tooth has not been submitted for aging yet. The age at death is determined by counting stained cementum annuli on teeth (preferably the incisor), similar to counting the rings of a tree (Figure 6). June 1 has historically been used as the birth date for caribou (Matson 1981). The age at death for female boreal caribou in our study area ranged from four to 17 years (Figure 7).

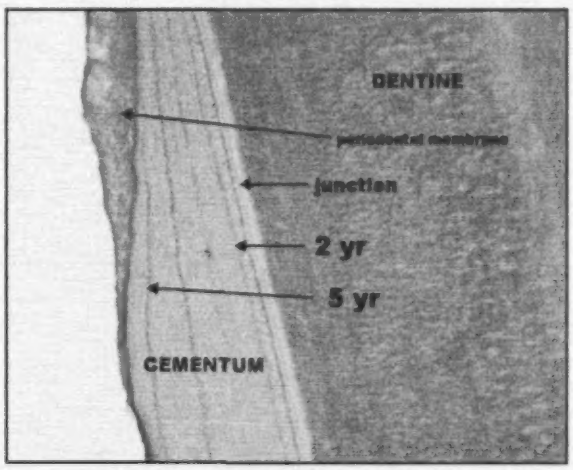

Figure 6. The stained section of a tooth root. The dark blue lines are stained cementum.

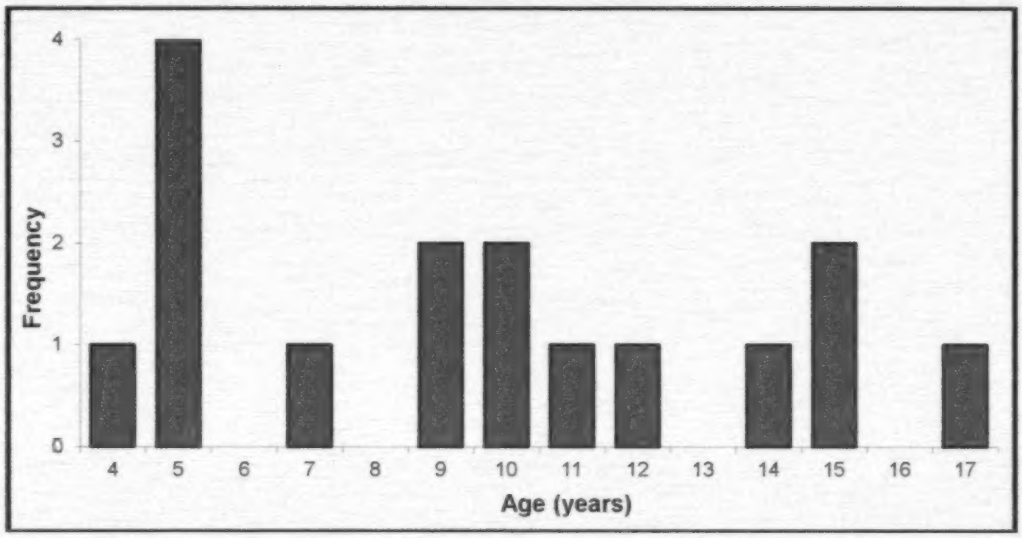

Figure 7. The frequency of age at death for 16 female boreal caribou. Age was determined by counting cementum annuli.

Caribou 182

On 2 October 2012 we retrieved the lower jaw in addition to the collar from caribou 182. A premolar tooth was sent to Matson's lab for aging and it was aged at 4 years. Based upon this age at death, the progesterone levels in her blood when collared, movement data analysis, and survey results this caribou had calves at age two, three, and four. Her first two calves survived their first 9 months. Her last calf we suspect was likely predated along with her in August 2012.

Adult Female Survival

Adult female survival varies annually (Table 3; Figure 8), but based upon the number of collared caribou that have died during the course of the study to date (Kaplan and Meier 1958; Pollock et al. 1989), our best estimate (geometric mean) of adult female survival for the Dehcho for the eight years from 2005/06 to 2012/13 is 79%. We did not include the estimates from 2004/05 due to a small sample size (ten collars) and the restricted area of deployment. The past year estimate was one of the highest and could have been higher. Collars on two females released 18 days before a full year of survival could be registered. Adult females collared in the north Dehcho have a somewhat higher estimated survival than females collared in the south Dehcho, 81.7% versus 78.0%. Nagy (2011) found that boreal caribou populations were more viable in areas with fewer seismic lines, and where there were larger patches of secure unburned habitat. Our estimates of adult female survival support this because there are fewer seismic lines, and more, larger patches of unburned habitat in the north versus the south Dehcho. The adult female survival rate we report is similar to estimates from studies in the Cameron Hills (81% average from five years; Kelly and Cox 2011), but lower than estimated in the Hay River Lowlands (86% average from seven years; Kelly and Cox 2011) and Gwich'in (≥95% average from three years; Nagy 2011) areas. Low adult female survival reduces the population rate of increase.

Table 3. The estimated annual population rate of increase (λ) for eight successive years. Rates for the south Dehcho are calculated for caribou collared south of the Mackenzie River, rates for the north Dehcho for caribou collared north of the Mackenzie River.

South Dehcho

Year	Female Survival Rate	Calf:100 Females	Rate of Increase (λ)
2005-2006	0.6250	0.2587	0.7179
2006-2007	0.6429	0.2616	0.7396
2007-2008	0.9375	0.2558	1.0750
2008-2009	0.7391	0.4444	0.9503
2009-2010	0.8500	0.4667	1.1087
2010-2011	0.7143	0.5555	0.9890
2011-2012	0.8750	0.2443	0.9968
2012-2013	0.9231	0.5555	1.2781

North Dehcho

Year	Female Survival Rate	Calf:100 Females	Rate of Increase (λ)
2005-2006	0.6000	0.3318	0.7193
2006-2007	0.7500	0.1999	0.8333
2007-2008	0.8235	0.1937	0.9118
2008-2009	1.0000	0.3333	1.2000
2009-2010	0.8235	0.6667	1.2353
2010-2011	1.0000	0.7333	1.5789
2011-2012	0.7692	0.6250	1.1189
2012-2013	0.8462	0.0588	0.8718

Dehcho Combined

Year	Female Survival Rate	Calf:100 Females	Rate of Increase (λ)
2005-2006	0.6191	0.2881	0.7232
2006-2007	0.6923	0.2286	0.7817
2007-2008	0.8788	0.2335	0.9949
2008-2009	0.8000	0.3611	0.9763
2009-2010	0.8378	0.5238	1.1351
2010-2011	0.8571	0.6667	1.2857
2011-2012	0.8095	0.4333	1.0334
2012-2013	0.8846	0.3143	1.0496

Estimated Population Rate of Increase

We estimated the population rate of increase (λ) measured from April 1 to March 31 for eight successive years for all caribou collared throughout the entire study area. We made separate estimates for caribou collared north and south of the Mackenzie River (Table 3). We based the λ estimate on annual female survival and the ratio of calves per 100 adult females (calf:cow) reported in March (Hatter and Bergerud 1991). Of note is that prior to 2009, the March ratio of calf:cow was estimated from all animals observed during the classification surveys. From 2009 to present, we had a larger sample size of collared and therefore known females. Because it is these females that are used to estimate adult survival, and adult females are harvested, we estimated calf:cow solely from the collared females. We feel this is the most appropriate estimation of recruitment assuming that the collared females are a representative sample of all females. A rate of increase, or λ, of one indicates population stability, <1 indicates population decrease, and >1 indicates population increase. Small sample sizes affect the confidence of the estimate. The higher estimated annual rates of increase over the past four years are encouraging, but the average estimated rate of increase over the past eight years (λ = 0.98) still remains <1. If we had started with a population of 1000 adult female caribou in 2004, and used our estimated annual population rates of increase there would be 874 adult females today (Figure 9). The higher adult female survival over the past year offset the low calf recruitment which was likely related to the inclement weather during the calving period. Of note is an error in the estimated recruitment for last year, which has been corrected and did lower the estimate for λ (Table 3; Figure 8).

The population rate of increase (λ) we report (averaged over eight years) is similar to the Hay River Lowlands (λ = 0.96 averaged over seven years) but greater than the Cameron Hills (λ = 0.87 averaged over five years) study areas, (Kelly and Cox 2011), even though adult female survival is higher in both South Slave (SS) study areas. Calf recruitment in SS study areas is much lower than in the Dehcho. Low calf recruitment appears to be reducing λ in the SS study areas regardless of >80% adult female survival. The population rate of increase reported for the Gwich'in areas over two to three years was λ = 1.08 to 1.20 (Nagy 2011). In the Gwich'in area both female survival and late winter calf:cow are higher.

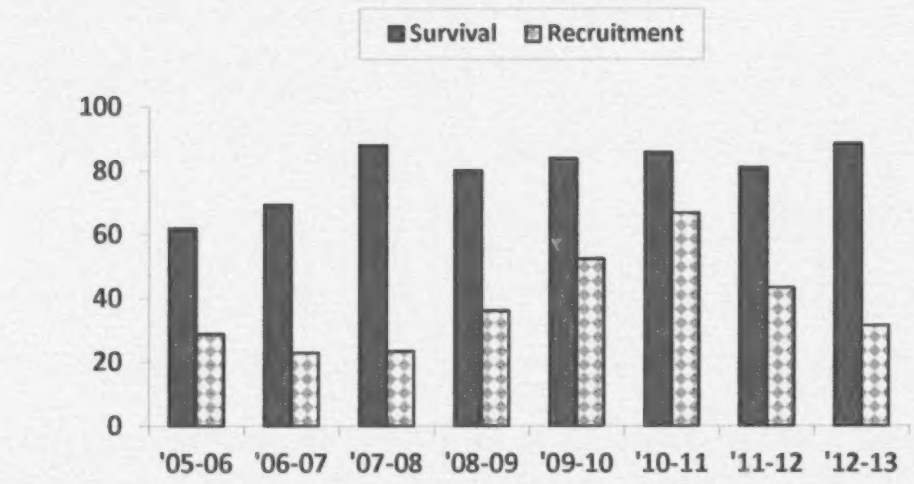

Figure 8. Adult female survival (%) and calves:100 adult females in March (recruitment) for the Dehcho study area from 2005-06 to 2012-2013, based on radio-collared female caribou.

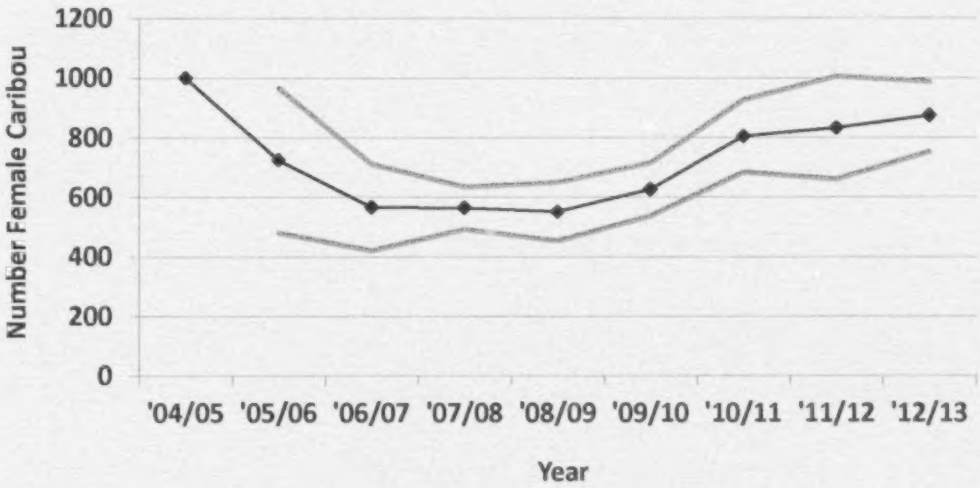

Figure 9. The estimated number of female caribou in each year of the study starting with a population of 1000 and using the annual rates of increase (λ) calculated for the 8 successive years. The green and red lines represent the upper and lower 95% confidence intervals.

Disease and Parasites

Baseline data collected from the Dehcho, and South Slave study areas from 2003-2007 indicated that boreal caribou were relatively disease and parasite free. Low numbers of parasites and antibodies to disease were reported; none were a cause for concern. All 22 blood samples submitted for *Brucella* testing were negative. More details can be found in Johnson *et al.* (2010). Three of 10 collared females in February 2013 showed a low incidence of common parasites in their feces but the other seven were parasite-free. One caribou captured in the Hay River Lowlands in March had the first reported case of winter ticks (Allicia Kelly pers. comm.).

Present and Future of the Study

We continue to work co-operatively with other researchers conducting boreal caribou studies. Nic Larter is a member of the Dehcho Boreal Caribou Working Group. Data from this study have been incorporated into a territorial-wide analysis. A PhD thesis (Nagy 2011), two publications (Johnson et al. 2010; Nagy et al. 2011), and two manuscript submissions have resulted.

Five collars released on schedule this past year, six collars are scheduled to release in June 2013. We make every attempt to retrieve collars so they can be refurbished for future deployment. We continue to use Telonics DS or GPS ARGOS collars almost exclusively with great success. New collar purchases in the near future would be GPS ARGOS. There continues to be support from our First Nations partners for annual deployment of collars to maintain a minimum of 30 active collars on females during the calving period throughout the study area. We also have received multi-year funding support. This year we received support from our First Nation partners to deploy an Iridium GPS collar manufactured by Vectronic Aerospace on a female caribou. This collar provides an ambient temperature recording with every location. It provides six locations/day and will last for five calving seasons. At the request of Pehdzeh Ki First Nation in Wrigley we did not deploy a collar on a caribou in their traditional areas in February 2013. Currently, there are six active collars in their traditional areas.

Deliverables

ENR provides this annual progress report on the Dehcho boreal caribou study to its First Nations partners and to the Western Northwest Territories Biophysical Study. The report is posted on the ENR website. ENR continues to provide quarterly maps to its First Nations partners. The maps show the ranges used by each individual collared female caribou over the previous three months.

Poster and oral presentations were made at the 6th biannual Dehcho regional wildlife workshop, October 2012 in Fort Simpson and at the 14th North American Caribou Workshop in Fort St. John, September 2012. Presentations were also made to the Dehcho Boreal Caribou Working Group.

Acknowledgements
We thank our First Nations partners for their continued and ongoing support of this study: Sambaa K'e Dene Band (Trout Lake), Fort Simpson Métis Local, Liidlii Kue First Nations (Fort Simpson), Jean Marie River First Nation, Pehdzeh Ki First Nation (Wrigley), Nahanni Butte Dene Band, Acho Dene Koe Band (Fort Liard), and Ka'a'gee Tu First Nation (Kakisa).

Dr. John Nagy continues to provide comment on and assistance with data analysis, stimulating discussions, and data and results from other analyses of boreal caribou location data. Allicia Kelly provided comparative data. We thank Forest Management, ENR, Fort Simpson, for providing access to helicopter time and fuel for collar retrievals and the March survey. CLS America and Vectronics Aerospace provide satellite location data. Matson's Lab aged all the teeth. Simpson Air, Wolverine Air, Great Slave Helicopters, and Canadian Helicopters have provided aircraft and skillful piloting for various aspects of the study. The Dehcho Land Use Planning Board provided digital linear feature data. Funding for the past year came from Wildlife Division, ENR, the Western Northwest Territories Biophysical Study (GNWT) and Aboriginal Affairs and Northern Development Canada.

Personal Communications
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Allicia Kelly, Regional Biologist, Environment & Natural Resources, Fort Smith, NT
John Nagy, PhD., University of Alberta, Edmonton, AB

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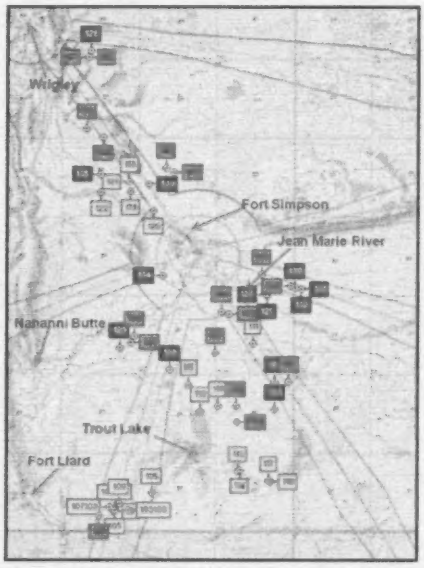
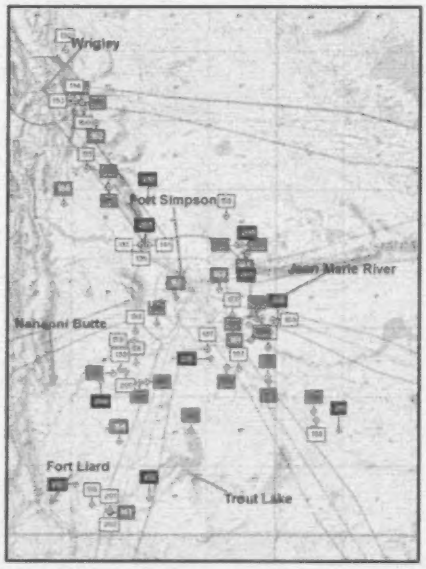
Appendix 1. The number and type of collars deployed on adult females throughout the course of the study (Table) and deployment locations for each year (Figures).

Date caribou collared	Satellite (ST-20-3610 or TAW-4610H)	GPS (TGW-3680 or TGW-4680)	VHF (Mod 600)	Vectronic GPS-PLUS 2	Totals
March 2004	10				10
March 2005	13				13
January 2006	9		4		13
January 2007	8	9			17
February 2008	4	4			8
February 2009	1	7			8
February 2010	9	9			18
February 2012	2	14			16
February 2013	1	8		1	10
TOTAL	57	51	4	1	113



Locations of 51 female boreal caribou collared in 2004, 2005, 2006, 2007 (see colour for locations).



Locations of 62 female boreal caribou collared in 2008, 2009, 2010, 2012 2013 (see colour for locations).

Appendix 2. Collar retrievals conducted from June 2012 to March 2013.

All collar retrievals from dead animals.

- 5 June, boated up Mackenzie River to recover caribou 181, not able to retrieve, no VHF signal by last satellite location.
- 15 June, helicopter from KM 518 on the Mackenzie Highway to north of the Mackenzie River, retrieved collar from caribou 190.
- 28 August, helicopter to Trout Lake Winter Road, retrieved collar from caribou 152, VHF signal stopped working managed to find without it.
- 2 October, helicopter to north of Mackenzie Highway, retrieved collar from caribou 176 and 182.

All flights to retrieve released collars.

- No released collars were retrieved this year.

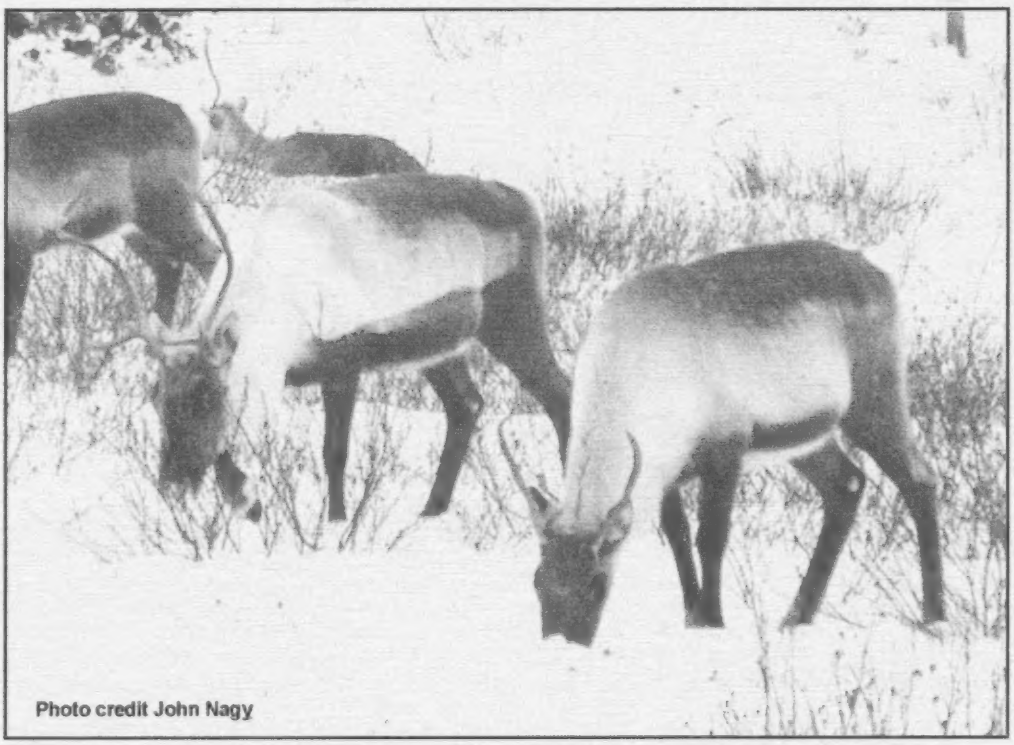


Photo credit John Nagy

Appendix 3. A timeline of each collared caribou since 2004. The collar type (GPS, Sat = Satellite, VHF) is noted as well as whether most recently only VHF signals are being received. **Black** font indicates currently active collars on caribou. Blue font indicates released caribou collars. Green font indicates unknown status/no release mechanisms on caribou collars. Red font indicates collars of known dead caribou. Purple indicates collars of known harvested caribou.

Caribou #212 (GPS)
- 27 Feb/13 collared
- 5 Mar/13 seen in group of 7 with calf

Caribou #211 (Sat)
- 14 Feb/13 collared
- 6 Mar/13 seen in group of 5 with calf

Caribou #210 (GPS)
- 12 Feb/13 collared
- 4 Mar/13 seen in group of 16 without calf

Caribou #209 (GPS-PLUS 2)
- 12 Feb/13 collared
- 4 Mar/13 seen in group of 6 with #196 without calf

Caribou #208 (GPS)
- 12 Feb/13 collared
- 5 Mar/13 seen in group of 8 without calf

Caribou #207 (GPS)
- 12 Feb/13 collared
- 4 Mar/13 seen alone without calf

Caribou #206 (GPS)
- 12 Feb/13 collared
- 5 Mar/13 seen in group of 4 without calf

Caribou #205 (GPS)
- 11 Feb/13 collared
- 5 Mar/13 seen in group of 5 without calf

Caribou #204 (GPS)
- 11 Feb/13 collared
- 5 Mar/13 seen in group of 10 with #169, #170 with calf

Caribou #203 (GPS)
- 11 Feb/13 collared
- 5 Mar/13 seen in group of 7 without calf

Caribou #202 (GPS)
- 14 Mar/12 collared
- Did not relocate in 2012, was collared after survey
- 5 Mar/13 seen in group of 6 without calf

Caribou #201 (GPS)
- 14 Mar/12 collared
- Did not relocate in 2012, was collared after survey
- 5 Mar/13 seen in group of 11 without calf

Caribou #200 (GPS)
- 17 Feb/12 collared
- 2 Mar/12 seen with #199 but without calf
- 5 Mar/13 seen in group of 4 with calf

Caribou #199 (Sat)
- 17 Feb/12 collared
- 2 Mar/12 seen with #200 but without calf
- 5 Mar/13 seen in group of 13 without calf

Caribou #198 (GPS)
- 17 Feb/12 collared
- 2 Mar/12 seen in group of 4 without calf
- 5 Mar/13 seen in group of 13 with calf

Caribou #197 (GPS)
- 17 Feb/12 collared
- 1 Mar/12 seen in group of 6 without calf
- 5 Mar/13 seen in group of 2 with calf

Caribou #196 (GPS)
- 16 Feb/12 collared
- 29 Feb/12 seen in group of 4 with calf
- 4 Mar/13 seen in group of 6 with #209 without calf

Caribou #195 (GPS)
- 16 Feb/12 collared
- 29 Feb/12 seen in group of 7 without calf
- 4 Mar/13 seen in group of 4 without calf

Caribou #194 (Sat)
- 16 Feb/12 collared
- 29 Feb/12 seen in group of 4 without calf
- 4 Mar/13 seen in group of 3 without calf

Caribou #193 (GPS)
- 16 Feb/12 collared
- 29 Feb/12 seen in group of 7 with calf
- 4 Mar/13 seen in group of 4 without calf

Caribou #192 (GPS)
- 16 Feb/12 collared
- 29 Feb/12 seen alone
- 4 Mar/13 seen in group of 5 without calf

Caribou #191 (GPS)
- 15 Feb/12 collared
- 29 Feb/12 seen in group of 4 with calf
- 4 Mar/13 seen in group of 5 without calf

Caribou #190 (GPS, died)
- 15 Feb/12 collared
- 29 Feb/12 seen in group of 3 with calf
- Died 25 Mar/12
- 19 June/13 collar retrieved

Caribou #189 (GPS, VHF only)
- 15 Feb/12 collared
- 1 Mar/12 could not relocate in area
- 15 Mar/12 relocated in fixed-wing weak VHF signal
- 21 June/12 no satellite locations

Caribou #188 (GPS)
- 15 Feb/12 collared
- 1 Mar/12 seen in group of 3 without calf
- 6 Mar/13 seen in group of 3 with #151.790 without calf

Caribou #187 (GPS)
- 15 Feb/12 collared
- 1 Mar/12 seen in group of 4 without calf
- 6 Mar/13 seen in group of 4 with #151.980 without calf

Caribou #186 (GPS)
- 27 Feb/10 collared
- 2 Mar/10 seen with calf
- 2 Mar/11 seen in group of 5 with calf
- 2 Mar/12 seen in group of 4 with calf
- 5 Mar/13 seen in group of 13 without calf

Caribou #185 (GPS, died)

- 27 Feb/10 collared
- 2 Mar/10 seen alone, collar is resetting
- 3 Aug/10 located, no visual
- 2 Mar/11 seen in group of 4 with calf
- Died 22 Apr/12
- 24 Aug/12 unsuccessful retrieval attempt

Caribou #184 (GPS)

- 26 Feb/10 collared
- 1 Mar/10 seen in group of 6 with calf
- 1 Mar/11 seen in group of 7 with calf
- 1 Mar/12 seen in group of 4 with calf
- 4 Mar/13 seen in group of 4 without calf

Caribou #183 (Sat)

- 26 Feb/10 collared
- 1 Mar/10 seen in group of 6 without calf
- 1 Mar/11 seen in group of 13 without calf
- 29 Feb/12 seen in group of 2 without calf
- 4 Mar/13 seen in group of 5 without calf

Caribou #182 (GPS, died)

- 26 Feb/10 collared
- 1 Mar/10 seen with cow
- 1 Mar/11 seen in group of 7 with calf
- 1 Mar/12 seen in group of 3 with calf
- Died 4 Aug/12
- 2 Oct/12 collar retrieved

Caribou #181 (Sat, died)

- 26 Feb/10 collared
- 1 Mar/10 seen in group of 3 without calf
- 1 Mar/11 seen in group of 4 with calf
- Died 25 Apr/11

Caribou #180 (Sat, died)

- 26 Feb/10 collared
- 1 Mar/10 seen in group of 8 with calf
- 1 Mar/11 seen in group of 5 with calf
- 29 Feb/12 seen in group of 3 without calf
- Died 12 July/12

Caribou #179 (GPS, died)

- 25 Feb/10 collared
- 2 Mar/10 seen in group of 11 with calf
- Died 25 Nov/10
- 22 Feb/11 collar retrieved on Trout Lake

Caribou #178 (Sat, died)

- 25 Feb/10 collared
- 1 Mar/10 seen in group of 3 with calf
- Died 8 Oct/10
- 1 Mar/11 no signal at location

Caribou #177 (GPS)

- 25 Feb/10 collared
- 2 Mar/10 seen alone
- 25 Feb/11 seen with calf
- 1 Mar/12 seen in group of 9 without calf
- 6 Mar/13 seen in group of 2 with calf

Caribou #176 (Sat, died)
- 25 Feb/10 collared
- 2 Mar/10 seen in group of 3 without calf
- 25 Feb/11 seen in group of 7 without calf
- 1 Mar/12 seen with calf
- Died 13 Aug/12
- 2 Oct/12 collar retrieved

Caribou #175 (Sat, died)
- 25 Feb/10 collared
- 2 Mar/10 seen in group of 5 without calf
- Died 6 Sep/10
- 23 Nov/10 no caribou at signal location - inaccessible

Caribou #174 (GPS)
- 24 Feb/10 collared
- 1 Mar/10 seen with cow
- 1 Mar/11 seen in group of 5 with calf
- 29 Feb/12 seen in group of 8 with calf
- 4 Mar/13 seen in group of 11 without calf

Caribou #173 (GPS, died)
- 24 Feb/10 collared
- 1 Mar/10 seen in group of 8 with calf
- 1 Mar/11 seen in group of 5 without calf
- Died 16 Apr/11
- 24 Apr/12 collar retrieved

Caribou #172 (Sat)
- 24 Feb/10 collared
- 1 Mar/10 seen with calf
- 1 Mar/11 seen in group of 3 with calf
- 29 Feb/12 seen in group of 4 without calf
- 4 Mar/13 seen in group of 15 without calf

Caribou #171 (Sat)
- 24 Feb/10 collared
- 1 Mar/10 seen in group of 13 with #160 with calf
- 1 Mar/11 seen in group of 7 with calf
- 29 Feb/12 seen in group of 5 with calf
- 4 Mar/13 seen in group of 3 with calf

Caribou #170 (Sat)
- 23 Feb/10 collared
- 2 Mar/10 seen in group of 7 with #137 with calf
- 2 Mar/11 seen in group of 7 without calf
- 2 Mar/12 seen in group of 4 with #169 but without calf
- 5 Mar/13 seen in group of 10 with #169, #204 with calf
- 5 Mar/13 seen in group of 10 with #169, #204 with calf

Caribou #169 (GPS)
- 23 Feb/10 collared
- 2 Mar/10 seen alone
- 2 Mar/11 seen with calf
- 2 Mar/12 seen in group of 4 with #170 but without calf
- 5 Mar/13 seen in group of 10 with #170, #204 with calf

Caribou #168 (GPS, released)
- 19 Feb/09 collared
- 2 Mar/09 seen in group of 5 without calf
- 1 Mar/10 seen in group of 4 with calf
- 1 Mar/11 seen in group of 9 with calf
- 1 Jan/12 ceased satellite transmissions
- 29 Feb/12 seen in group of 4 with calf
- 10 June/12 released

Caribou #167 (GPS, died)

- 18 Feb/09 collared
- 3 Mar/09 seen in group of 7 without calf
- 21 Mar/09 locations became stationary, suspect wolf predation
- 5 Jun/09 collar retrieved

Caribou #166 (GPS, died)

- 19 Feb/09 collared
- 2 Mar/09 seen in group of 10 with #155 but without calf
- 1 Mar/10 seen in group of 4 without calf
- 1 Mar/11 seen alone
- Died 30 Oct/11

Caribou #165 (GPS, released)

- 19 Feb/09 collared with calf
- 2 Mar/09 seen in group of 14 with calf
- 1 Mar/10 seen in group of 10 with calf
- 1 Mar/11 seen in group of 9 with calf
- 29 Feb/12 seen with calf
- 10 June/12 released

Caribou #164 (GPS, released)

- 18 Feb/09 collared
- 3 Mar/09 seen in group of 4 without calf
- 2 Mar/10 seen in group of 3 without calf
- 2 Mar/11 seen with calf
- 2 Mar/12 seen in group of 6 without calf
- 10 June/12 released

Caribou #163 (GPS, died)

- 19 Feb/09 collared
- 3 Mar/09 seen in group of 9 without calf
- 1 Mar/10 seen with calf
- Died 15 April/10
- 14 Jun/10 signal from under ice on Liard River
- 3 Aug/10 collard seen, ice has melted
- 5 Aug/10 collar retrieved

Caribou #162 (GPS, harvested)

- 19 Feb/09 collared
- 2 Mar/09 seen in group of 11 without calf
- 5 May/09 shot by harvester
- 24 May/09 collar retrieved

Caribou #161 (Sat, released)

- 18 Feb/09 collared
- 2 Mar/09 seen in group of 5 without calf
- 2 Mar/10 seen with cow
- 12 Nov/10 satellite transmission ceased
- 2 Jun/11 released

Caribou #160 (Sat, released)

- 17 Feb/08 collared with calf
- 3 Mar/08 seen in group of 5 with calf
- 28 May/08 no visual
- 2 Mar/09 seen in group of 14 without calf
- 1 Mar/10 seen in group of 13 with #171 and with calf
- 1 Mar/11 seen alone
- 29 Feb/12 seen in group of 6 with calf
- 4 Mar/13 seen in group of 4 without calf
- 7 Mar/13 released

Caribou #159 (Sat, released)

- 16 Feb/08 collared
- 4 Mar/08 seen in group of 24 without calf
- 21 Apr/08 located with 134
- 28 May/08 seen without calf
- 3 Mar/09 seen in group of 8 without calf
- 1 Mar/10 seen in group of 10 without calf
- 2 Mar/11 seen in group of 16 with #134 but without calf
- 2 Mar/12 seen in group of 7 without calf
- 5 Mar/13 seen in group of 8 with calf
- 7 Mar/13 released

Caribou #158 (Sat, died)

- 17 Feb/08 collared
- 3 Mar/08 seen with cow
- 28 May/08 seen with calf
- 2 Mar/09 seen in group of 6 with calf
- Died 10 May/09
- 2 Jun/09 collar retrieved

Caribou #157 (Sat, released)

- 17 Feb/08 collared
- 3 Mar/08 seen in group of 5 without calf
- 23 May/08 lost satellite signal
- 29 May/08 seen in group of 3 with calf
- 2 Mar/09 seen in group of 5 with calf
- 1 Mar/10 seen in group of 5 without calf
- 30 Sep/10 collar released

Caribou #156 (GPS, died)

- 18 Feb/08 collared with calf
- 4 Mar/08 seen in group of 4 with calf
- 29 May/08 seen without calf
- 3 Mar/09 seen in group of 14 with calf
- Died 13 Apr/09
- 13 Jul/09 collar retrieved

Caribou #155 (GPS, harvested)

- 17 Feb/08 collared
- 3 Mar/08 seen in group of 6 without calf
- 28 May/08 seen with calf
- 2 Mar/09 seen in group of 10 with #166 but without calf
- Died 29 Jul/09
- 21 Sep/09 collar retrieved

Caribou #154 (GPS, released)

- 17 Feb/08 collared
- 5 Mar/08 seen in group of 19 without calf
- 29 May/08 seen with calf
- 4 Mar/09 seen in group of 5 with calf
- 2 Mar/10 seen in group of 7 with calf
- 2 Mar/11 seen with calf
- 1 Jul/11 collar released

Caribou #153 (GPS, released)

- 16 Feb/08 collared with calf
- 4 Mar/08 seen in group of 4 without calf
- 29 May/08 seen without calf
- 2 Mar/09 seen in group of 5 with calf
- 2 Mar/10 seen in group of 4 with calf
- 2 Mar/11 seen in group of 6 without calf
- 1 Jul/11 collar released

Caribou #152 (GPS, died)

- 23 Jan/07 collared
- 27 Feb/07 seen in group of 6 without calf
- 30 May/07 seen with calf
- 4 Mar/08 seen with cow
- 30 May/08 seen with calf
- 3 Mar/09 seen in group of 10 without calf
- 2 Mar/10 seen in group of 9 with calf
- Died 25 Mar/10
- 21 May/10 tried to relocate by helicopter, too much water
- 22 Feb/11 ground relocation attempt but no signal

Caribou #151 (GPS, harvested)

- 22 Jan/07 collared
- 26 Feb/07 seen in group of 6 without calf
- 29 May/07 seen with calf
- 3 Mar/08 seen in group of 8 without calf
- 28 May/08 seen with calf
- Died 8-10 Aug/08 by Fish Lake likely shot by harvester
- 2 Jun/09 collar retrieved

Caribou #150 (GPS, harvested)

- 22 Jan/07 collared
- 26 Feb/07 seen in group of 2 without calf
- 29 May/07 seen with calf
- 3 Mar/08 seen with cow
- Died 26-28 May/08 likely shot by harvester
- 17 Jun/08 collar retrieved

Caribou #149 (GPS, released)

- 24 Feb/07 collared
- 27 Feb/07 seen in group of 7 without calf
- 30 May/07 seen with calf
- 4 Mar/08 seen in group of 10 without calf
- 29 May/08 seen with calf
- 3 Mar/09 seen in group of 9 with calf
- 3 Mar/10 seen in group of 12 without calf
- 2 Jun/10 collar released
- 8 Oct/10 collar retrieved

Caribou #148 (Sat, released)

- 24 Jan/07 collared
- 26 Feb/07 seen in group of 12 without calf
- 30 May/07 seen without calf
- 4 Mar/08 seen with calf
- 29 May/08 seen with calf
- 2 Mar/09 seen in group of 3 without calf
- 30 Sep/09 collar released
- 2 Mar/10 collar located from air in inaccessible area

Caribou #147 (Sat, died)

- 22 Jan/07 collared
- 26 Feb/07 seen in group of 8 without calf
- 30 May/07 seen without calf
- 3 Mar/08 seen in group of 9 without calf
- 28 May/08 seen with calf
- Died 20-26 Jun/08
- 17 Aug/09 collar retrieved

Caribou #146 (Sat, released)

- 21 Jan/07 collared
- 27 Feb/07 see in group of 11 with calf
- 30 May/07 seen with calf
- 4 Mar/08 seen in group of 4 with calf
- 29 May/08 seen without calf
- 2 Jul/08 lost satellite signal
- 3 Mar/09 seen in group of 3 with #108 but without calf
- 2 Mar/10 seen in group of 4 with calf
- 30 Sep/10 collar released

Caribou #145 (Sat, released)

- 21 Jan/07 collared
- 27 Feb/07 seen in group of 3 without calf
- 30 May/07 seen without calf
- 3 Mar/08 seen in group of 4 with calf
- 29 May/08 seen with calf
- 2 Jul/08 lost satellite signal
- 2 Mar/09 seen in group of 5 with calf
- 1 Mar/10 seen in group of 4 with calf
- 30 Sep/10 collar released

Caribou #144 (Sat, harvested)

- 23 Jan/07 collared
- 26 Feb/07 seen in group of 10 without calf
- Died 5-6 Apr/07 shot by harvester
- 12 Apr/07 collar retrieved

Caribou #143 (Sat, released)

- 21 Jan/07 collared
- 26 Feb/07 seen in group of 6 without calf
- 29 May/07 seen with calf
- 20 Nov/07 seen in group of 4
- 04 Sep/07 lost satellite transmission
- 4 Mar/08 seen in group of 6 without calf
- 26 Mar/08 located, no visual
- 21 Apr/08 located, no visual
- 29 May/08 not located, no signal
- 3 Mar/09 seen in group of 2 without calf
- 14 May/09 located, no visual
- 1 Jun/09 seen with calf
- 9 Jul/09 located, no visual
- 12 Aug/09 located, no visual
- 2 Sept/09 located, no visual
- 28 Oct/09 located, no visual
- 22 Nov/09 located, no visual
- 22 Feb/10 located, no visual
- 2 Mar/10 seen in group of 4 without calf
- 3 Aug/10 located, no visual
- 30 Sep/10 collar released
- 23 Nov/10 no caribou at collar location
- 31 Jan/11 no caribou at signal location

Caribou #142 (Sat, unknown status)

- 22 Jan/07 collared
- 26 Feb/07 seen in group of 10 without calf
- 29 May/07 seen with calf
- 3 Mar/08 seen in group of 4 without calf
- Died before 9 May/08
- 28 May/08 no VHF signal from last known satellite location, collar likely underwater

Caribou #141 (Sat, died)
- 23 Jan/07 collared
- 26 Feb/07 seen in group of 2 without calf
- Died 27-31 May/07
- 13 Jul/07 collar retrieved

Caribou #140 (GPS, died)
- 24 Jan/07 collared
- 26 Feb/07 seen in group of 3 without calf
- 30 May/07 seen without calf
- Died 30 Oct-4 Nov/07
- 25 Apr/08 collar retrieved

Caribou #139 (GPS, died)
- 21 Jan/07 collared
- 27 Feb/07 seen in group of 6 without calf
- 30 May/07 seen in group of 4 with calf
- 3 Mar/08 seen with calf
- 29 May/08 seen with calf
- 2 Mar/09 seen in group of 3 without calf
- Died 6 July/09
- 10 Aug/09 collar retrieved

Caribou #138 (GPS, released)
- 23 Jan/07 collared
- 27 Feb/07 seen in group of 4 without calf
- 30 May/07 seen without calf
- 4 Mar/08 seen in group of 8 without calf
- 29 May/08 seen with calf
- 3 Mar/09 seen in group of 17 without calf
- 2 Mar/10 seen in group of 3 without calf
- 2 Jun/10 collar released

Caribou #137 (GPS, released)
- 23 Jan/07 collared
- 27 Feb/07 seen in group of 5 without calf
- 29 May/07 seen with calf
- 5 Mar/08 seen with calf
- 29 May/08 seen in group of 3 with calf
- 3 Mar/09 seen in group of 13 with calf
- 2 Mar/10 seen in group of 7 with #170 with calf
- 2 Jun/10 collar released
- 3 Aug/10 no caribou at signal location
- 23 Nov/10 no caribou at signal location

Caribou #136 (GPS, released)
- 23 Jan/07 collared
- 26 Feb/07 seen in group of 5 without calf
- 29 May/07 seen without calf
- 5 Mar/08 seen in group of 19 without calf
- 29 May/08 seen with calf
- 7 Mar/09 seen in group of 7 without calf
- 2 Mar/10 seen in group of 3 without calf
- 2 Jun/10 collar released
- 3 Aug/10 no caribou at signal location

Caribou #135 (VHF, died)
- 21 Jan/06 collared
- 1 Mar/06 seen in group of 4 without calf
- 30 May/06 without calf
- 28 Sep/06 no visual
- 23 Feb/07 seen in group of 6 without calf
- Died 23-28 May/07
- 31 May/07 collar retrieved

Caribou #134 (VHF, released)

- 21 Jan/06 collared
- 1 Mar/06 seen in group of 3
- 29 May/06 seen with calf
- 16 Sep/06 seen in group of 4
- 26 Feb/07 seen in group of 2 without calf
- 29 May/07 seen without calf
- 15 Feb/08 seen in group of 13 without calf
- 4 Mar/08 seen in group of 24 without calf
- 26 Mar/08 located, no visual
- 21 Apr/08 located with #159
- 28 May/08 seen with calf
- 3 Mar/09 seen in group of 9 with calf
- 14 May/09 located, no visual
- 1 Jun/09 seen with calf
- 9 Jul/09 located, no visual
- 12 Aug/09 located, no visual
- 2 Sep/09 located, no visual
- 28 Oct/09 located, no visual
- 22 Nov/09 located, no visual
- 22 Feb/10 located, no visual
- 1 Mar/10 seen in group of 3 with calf
- 14 Jun/10 located, no visual
- 3 Aug/10 located, no visual
- 23 Nov/10 located, no visual
- 31 Jan/11 located, no visual
- 1 Mar/11 seen in group of 16 including #159 and with calf

Caribou #133 (VHF, unknown status)

- 21 Jan/06 collared
- 1 Mar/06 seen with calf
- 30 May/06 seen with calf
- 23 Jan/07 seen in group of 10 without calf
- 26 Feb/07 seen in group of 3 without calf
- 29 May/07 seen with calf
- Unable to relocate since Dec/08

Caribou #132 (VHF, released)

- 22 Jan/06 collared
- 1 Mar/06 seen in group of 9 with calf
- 29 May/06 approx. location not pregnant
- 16 Sep/06 seen in group of 2 without calf
- 26 Feb/07 seen in group of 3 without calf
- 30 May/07 seen with calf
- 15 Feb/08 seen in group of 5 without calf
- 4 Mar/08 seen in group of 5 without calf
- 26 Mar/08 located, no visual
- 21 Apr/08 located, no visual
- 29 May/08 not located
- 1 Mar/09 programmed release date
- 2 Mar/09 located collar in mortality mode, no caribou at signal location

Caribou #131 (Sat, released)

- 22 Jan/06 collared
- 1 Mar/06 seen with calf
- 29 May/06 without calf
- 16 Sep/06 seen in group of 3 cows without calf
- 21 Jan/07 seen in group of 5 with calf
- 27 Feb/07 seen in group of 5 without calf
- 30 May/07 seen with calf
- 03 Mar/08 seen in group of 8 with calf
- 29 May/08 seen with calf
- 2 Mar/09 seen in group of 4 with calf
- 15 Apr/09 collar released

Caribou #130 (Sat, died)

- 22 Jan/06 collared
- 1 Mar/06 seen in group of 7 without calf
- 29 May/06 without calf
- Died 1-7 Jul/06
- 23 Aug/06 collar retrieved

Caribou #129 (Sat, died)

- 20 Jan/06 collared
- 1 Mar/06 seen in group of 6 without calf
- 30 May/06 seen with calf
- 16 Sep/06 with calf
- 21 Jan/07 seen in group of 4 with calf
- 26 Feb/07 seen in group of 10 with calf
- 29 May/07 seen with calf
- 05 Mar/08 seen without calf
- Died 18-22 May/08
- 29 May/08 collar retrieved

Caribou #128 (Sat, released)

- 20 Jan/06 collared
- 2 Mar/06 seen in group of 5 without calf
- 30 May/06 seen in group of 4 with calf
- 16 Sep/06 seen in group of 3 without calf
- 27 Feb/07 seen in group of 5 without calf
- 29 May/07 seen with calf
- 04 Mar/08 seen in group of 10 with calf
- 29 May/08 seen with calf
- 22 Oct/08 collar finished transmitting
- 3 Mar/09 seen in group of 3 with calf
- 2 Mar/10 seen in group of 7 without calf
- 3 Mar/10 collar released

Caribou #127 (Sat, died)

- 22 Jan/06 collared
- 1 Mar/06 seen in group of 7 with calf
- 29 May/06 seen with calf
- Died 1-5 Jul/06
- 16 Sep/06 confirm wolf predation
- 23 Oct/06 collar retrieved

Caribou #126 (Sat, died)

- 21 Jan/06 collared
- 1 Mar/06 seen in group of 5 with yearling
- 30 May/06 seen with calf
- 26 Feb/07 seen in group of 13 without calf
- 29 May/07 seen without calf
- 03 Mar/08 seen in group of 14 without calf
- 28 May/08 seen with calf
- 2 Mar/09 seen in group of 5 without calf
- Died 28 Apr/09
- 7 Jun/11 collar retrieved

Caribou #125 (Sat, died)

- 22 Jan/06 collared
- 1 Mar/06 seen in group of 16 with yearling
- 29 May/06 seen with small calf
- Died 12-15 Jul/06, likely wolf predation
- 16 Sep/06 no visual
- 23 Oct/06 collar retrieved

Caribou #124 (Sat, died)

- 20 Jan/06 collared
- 2 Mar/06 seen in group of 7 without calf
- Died 13-19 May/06, likely wolf predation
- 23 Aug/06 collar retrieved

Caribou #123 (Sat, died)

- 20 Jan/06 collared
- 2 Mar/06 seen in group of 4 with calf
- 29 May/06 without calf
- 16 Sep/06 seen in group of 3
- Died 1-5 Nov/06 on Trainor Lake
- 15 Feb/07 locate collar in ice
- 27 Feb/07 collar retrieved

Caribou # 122 (Sat, harvested)

- 4 Mar/05 collared
- 21 Mar/05 seen in group of 3
- 30 Mar/05 seen in group of 3
- 1 Jun/05 seen alone without calf
- 4 Jun/05 no visual
- 23 Sep/05 no visual
- 10 Oct/05 no visual
- 31 Nov/05 no satellite signal
- 4 Apr/05 got satellite signal back
- 30 May/05 seen without calf
- 24 Nov/06 no satellite signal
- 15 Jun/07 collar went off air finishing transmissions
- 15 Apr/11 collar handed in by harvester

Caribou #121 (Sat, died)

- 4 Mar/05 collared
- 21 Mar/05 seen in group of 3
- Died 26-27 Mar/05 predated by wolves
- 30 Mar/05 collar retrieved

Caribou #120 (Sat, released)

- 4 Mar/05 collared
- 21 Mar/05 seen in group of 13
- 30 Mar/05 seen in group of 3
- 1 Jun/05 no visual
- 4 Jun/05 seen alone without calf
- 23 Sep/05 seen in group of 14
- 10 Oct/05 no visual
- 16 Jan/06 seen in group of 3
- 1 Mar/06 seen in group of 5
- 30 May/06 without calf
- 26 Feb/07 seen in group of 10 without calf
- 30 May/07 seen without calf
- 7 Dec/07 seen in group of 4 without calf
- 3 Mar/08 seen in group of 4 without calf
- 28 May/08 seen with calf
- 7 Oct/08 transmissions from collar ceased
- 2 Mar/09 see in group of 6 without calf
- 3 Mar/09 collar released
- 29 Aug/09 collar retrieved

Caribou # 119 (Sat, released)

- 4 Mar/05 collared
- 21 Mar/05 seen in group of ≥8
- 30 Mar/05 no visual
- 1 Jun/05 seen alone without calf
- 23 Sep/05 no visual
- 10 Oct/05 no visual
- 16 Jan/06 in group of 5 without calf
- 1 Mar/06 in group of 4
- 30 May/06 with calf
- 22 Jan/07 in group of 3 with calf
- 26 Feb/07 in group of 11 with calf
- 29 May/07 seen without calf
- 3 Mar/08 seen with cow
- 28 May/08 seen with calf
- 10 Sep/08 satellite transmissions ceased
- 2 Mar/09 seen in group of 5 without calf
- 3 Mar/09 collar released
- 2 Jun/09 collar retrieved

Caribou # 118 (Sat, died)

- 4 Mar/05 collared
- 21 Mar/05 seen in group of 10
- 30 Mar/05 seen in group of 9
- 1 Jun/05 no visual
- 4 Jun/05 no visual
- Died 15-21 Jun/05, likely wolf predation
- 6 Sep/05 collar retrieved

Caribou #117 (Sat, died)

- 3 Mar/05 collared
- 31 May/05 seen alone without calf
- 10 Jun/05 seen in thick brush
- 23 Sep/05 seen in group of at least 4
- 26 Jan/06 seen in group of 4 with calf
- 2 Mar/06 seen in group of 5 with calf
- Died 17-21 Apr/06
- 28 Aug/06 collar retrieved

Caribou #116 (Sat, released)

- 3 Mar/05 collared
- 31 May/05 seen alone without calf
- 10 Jun/05 no visual
- 23 Sep/05 seen in group of 3
- 26 Jan/06 seen in group of 7 with calf
- 2 Mar/06 seen in group of 4 with calf
- 29 May/06 seen with calf
- 16 Sep/06 seen in group of 2 without calf
- 23 Jan/07 seen in group of 12 without calf
- 27 Feb/07 seen in group of 6 without calf
- 30 May/07 seen in group of 3 with calf
- 4 Mar/08 seen with bull
- 29 May/08 seen with calf
- 13 Oct/08 satellite transmission ceased
- 3 Mar/09 seen in group of 17 without calf
- 3 Mar/09 collar released
- 7 Jul/09 collar retrieved

Caribou #115 (Sat, released)

- 3 Mar/05 collared
- 10 Apr/05 seen in group of 3
- 31 May/05 seen alone without calf
- 23 Sep/05 no visual
- 5 Oct/05 seen in group of 2 without calf
- 2 Mar/06 seen in group of 9 without calf
- 30 May/06 seen in group of 2 without calf
- 16 Sep/06 seen in group of 4 without calf
- 27 Feb/07 seen in group of 4 without calf
- 29 May/07 seen with calf
- 04 Mar/08 seen with 2 cows
- 30 May/08 seen with calf
- 1 Oct/08 satellite transmissions ceased
- 4 Mar/09 seen in group of 3 with calf
- 3 Mar/09 collar released
- 10 Aug/09 collar retrieved

Caribou #114 (Sat, released)

- 3 Mar/05 collared
- 10 Apr/05 seen in group of 9
- 31 May/05 no visual
- 10 Jun/05 seen alone without calf
- 23 Sep/05 no visual
- 2 Mar/06 seen in group of 6 without calf
- 29 May/06 seen in group of 3 without calf
- 16 Sep/06 seen in group of 3 without calf
- 27 Feb/07 seen in group of 6 without calf
- 30 May/07 seen with without calf
- 4 Mar/08 seen in group of 7 without calf
- 29 May/08 seen with calf
- 3 Jul/09 satellite transmissions ceased
- 3 Mar/09 seen in group of 13 with calf
- 3 Mar/09 collar released
- 1 Jun/09 collar retrieved

Caribou #113 (Sat, died)

- 3 Mar/05 collared
- 10 Apr/05 seen in group of 4
- 31 May/05 no visual
- 10 Jun/05 seen alone without calf
- Died 2-8 Sep/05 likely wolf predation
- 5 Oct/05 collar retrieved

Caribou #112 (Sat, released)

- 3 Mar/05 collared
- 10 Apr/05 seen with calf
- 31 May/05 seen with calf
- 10 Jun/05 seen with calf
- 23 Sep/05 no visual
- 1 Mar/06 seen in group of 6 with calf
- 30 May/06 seen in group of 4 with calf
- 16 Sep/06 seen with calf
- 27 Feb/07 seen in group of 5 with calf
- 29 May/07 seen with calf
- 5 Mar/08 seen with 2 bulls
- 30 Jun/08 located, no visual
- 22 Oct/08 satellite transmission ceased
- 3 Mar/09 collar released
- 6 Jul/09 collar retrieved

Caribou #111 (Sat, released)

- 3 Mar/05 collared
- 5 May/05 seen in group of 2
- 31 May/05 seen with calf
- 23 Sep/05 seen in group of 5 with calf
- 1 Mar/06 seen in group of 9 without calf
- 29 May/06 seen with calf
- 16 Sep/06 seen in group of 3
- 24 Jan/07 seen in group of 14
- 27 Feb/07 seen in group of 4 with calf
- 30 May/07 seen with calf
- 4 Mar/08 seen in group of 8 with calf
- 28 May/08 seen with calf
- 11 Nov/08 satellite transmission ceased
- 3 Mar/09 seen in group of 11 with calf
- 3 Mar/09 collar released
- 10 Jul/09 collar retrieved

Caribou #110 (Sat, died)

- 5 Mar/05 collared
- 5 May/05 seen alone without calf
- 31 May/05 seen alone without calf
- Died 5-11 Jun/05 likely wolf predation
- 29 Jul/05 collar retrieved

Caribou #109 (Sat, died)

- 1 Apr/04 collared
- 29 May/04 no visual
- 22 Sep/04 seen in group of 4 without calf
- 31 May/05 seen with calf
- 19 Jun/05 seen with calf
- 23 Sep/05 no visual
- 5 Oct/05 seen in group of 3 with calf
- Died 22-25 Apr/06, likely wolf predation
- 23 Aug/06 collar retrieved

Caribou #108 (Sat, observed alive, no Sat or VHF active)

- 1 Apr/04 collared
- 29 May/04 seen alone without calf
- 3 Jun/04 no visual
- 22 Sep/04 seen in group of 3 without calf
- 25 Jan/05 seen in group of 4 without calf
- 31 May/05 no visual
- 10 Jun/05 no visual
- 19 Jun/05 seen with calf
- 23 Sep/05 no visual
- 5 Oct/05 seen in group of 5 with calf
- 2 Mar/06 seen in group of 3 with yearling
- 30 May/06 seen with calf
- 23 Jan/06 seen in group of 5 with calf
- 27 Feb/07 seen in group of 11 with calf
- 30 May/07 seen in group of 3 with calf
- 15 Jun/07 satellite transmissions ceased
- 3 Mar/09 seen in group of 3 with #146, no VHF transmissions

Caribou #107 (Sat, died)

- 1 Apr/04 collared
- 29 May/04 no visual
- 22 Sep/04 seen in group of 3 with calf
- Died 14-17 Apr/05 likely wolf predation
- 4 May/05 collar retrieved

Caribou #106 (Sat, died)

- 30 Mar/04 collared
- 29 May/04 no visual
- 3 Jun/04 seen in group of 2 with calf
- 22 Sep/04 seen in group of 7 without calf
- 25 Jan/05 seen in group of 5 without calf
- 31 May/05 seen alone without calf
- 23 Sep/05 seen in group of 2 without calf
- Died 21-24 Nov/05, likely wolf predation
- 30 May/06 collar retrieved

Caribou #105 (Sat, died)

- 30 Mar/04 collared
- 29 May seen in group of 3 with calf
- 22 Sep/04 no visual
- 25 Jan/05 seen in group of 3 without calf
- 31 May/05 seen alone without calf
- 19 Jun/05 seen alone without calf
- 23 Sep/05 no visual
- 2 Mar/06 seen in group of 11 without calf
- Died 13 May/06, likely wolf predation
- 23 Aug/06 collar retrieved

Caribou #104 (Sat, died)

- 29 Mar/04 collared
- 29 May/04 seen in group of 3 without calf
- 3 Jun/04 seen in group of 3 without calf
- 22 Sep/04 no visual
- Died 19-27 Apr/05, death probably related to old age
- 4 May/05 collar retrieved

Caribou #103 (Sat, died)

- 1 Apr/04 collared
- 29 May/04 seen in group of 3 with calf
- 22 Sep/04 no visual
- Died 25-30 Apr/05, likely wolf predation
- 4 May/05 collar retrieved

Caribou #102 (Sat, died)

- 29 Mar/04 collared
- Died 14-15 May/04, wolf predation
- 3 Jun/04 collar retrieved

Caribou # 101 (Sat, died)

- 30 Mar/04 collared
- Died during month of May/04, likely wolf predation
- 9 Aug/04 collar retrieved

Caribou # 100 (Sat, no Sat or VHF active)

- 29 Mar/04 collared
- 29 May/04 seen in group of 3 without calf
- 3 Jun/04 seen alone without calf
- 22 Sep/04 no visual
- 25 Jan/05 seen in group of 11, without calf
- 31 May/05 seen in group of 3 with calf
- 19 Jun/05 seen alone without calf
- 23 Sep/05 problems with VHF transmission
- 30 Oct/06 problems with satellite transmission
- 6 Feb/06 no satellite/VHF signal
- 27 Feb/07 no visual
- 30 May/07 no visual
- 15 Jun/07 satellite transmission ceased